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HW3 Description

For my implementation of this assignment of creating an interactive 3D cube program, I have used the skeleton provided for the most part and to run my program you will need to run the cube.html file with a live server. For the rotations, I used to rotateX, rotateY, and rotateZ functions from MVnew.js to do all the necessary rotations of the cube. I provided the rotation controls underneath the canvas element in the cube.html file. For the camera, I used a translation vector to move the camera's position in whatever direction necessary with the controls next to the rotation controls. Furthermore, I do print out the cameras current position as the translations occur. However, when it comes to looking at the cube from the z index, I didn't implement it as the demo video shows with a button. Instead, you can adjust the way you look at the cube from the z-index using two different keys (z and x) which are noted as Camera Z in the controls explanation. Even though this isn't exactly how it was done in the demo video, you can still do the rotations in any direction while looking at the cube from a different z-index. Additionally, I did attempt the extra credit of adding perspective and orthographic camera projections to this interactive model and the event handlers should work properly. In the case where you would like to start with a fresh 3D cube, simply refresh the page.